

## **REMARKS and ARGUMENTS**

The Claims have been amended by amending Claims 1 and 18.

Claims 1-18 are pending in this application.

Claim 1 has been amended by incorporating additional limitations finding basis, for example, in paragraph [0014] of the specification.

Claim 18 has been amended to refer to the Figures that depict the structures of the recited compounds. See M.P.E.P. § 2173.05(s). This aspect of the amendment to Claim 18 is intended as a clarification only, and is not intended to alter its scope.

In another aspect, Claim 18 has been broadened by adding alternative limitations reciting Compounds 21 and 22. The omission of Compounds 21 and 22 from Claim 18 as originally filed resulted from a clerical oversight by the undersigned. Basis for this aspect of the amendment to Claim 18 is found, for example, in paragraphs [0014], [0072], and [0073] of the specification, as well as in Figure 4.

Enclosed is a check for \$510, paid as a small entity, to extend the date for response until September 29, 2006. If an additional extension of time is required, please consider this paper a petition for the total extension of time required, and please refer to the Deposit Account Authorization previously filed with this application.

### **The § 112, Second Paragraph Rejections**

There were two grounds of rejection under 35 U.S.C. § 112, second paragraph.

(a) Claims 1-18 were rejected under 35 U.S.C. § 112, second paragraph as omitting essential steps, namely, how the selective binding occurs.

Without conceding this point, it is respectfully submitted that the amendment to independent Claim 1 overcomes this ground of rejection. Independent Claim 1 now specifies that:

said selective binding comprises one or more steps selected from the group consisting of:

(a) coordination to a pentacoordinated or hexacoordinated metal ion in the core of the porphyrin macrocycle;

(b) electrostatic interaction with one or more carboranyl groups; and

(c)  $\pi$ - $\pi$  interaction with the porphyrin macrocycle.

It is respectfully submitted that the amendment to Claim 1 overcomes this ground of rejection.

(b) Claim 18 was also rejected under 35 U.S.C. § 112, second paragraph as referring to compounds numerically that were not set forth in the Claim. It is respectfully submitted that the amendment to Claim 18 overcomes this ground of rejection in a self-explanatory manner that does not require extended discussion. The amendment to refer to certain compounds as depicted in the figures is permissible under M.P.E.P. § 2173.05(s).

#### **The § 102 (e) Rejections**

Claims 1-18 were rejected under 35 U.S.C. § 102(e) as being anticipated by Miura, U.S. Patent 6,566,517.

Claim 1 is the sole independent Claim. If an independent Claim is novel and nonobvious, it logically follows that the dependent Claims are necessarily novel and nonobvious as well. See M.P.E.P. § 2143.03, first paragraph. Therefore, the following discussion focuses on independent Claim 1. Applicant reserves the right to present alternative arguments concerning the dependent Claims at a later date.

Claim 1 includes the limitation that the compound comprise "one or more carboranyl groups that are linked to the porphyrin macrocycle by carbon-carbon bonding . . . ." The carbon-carbon bonding helps make the compound resistant to hydrolysis. See the present specification, par. [0028].

The compounds used by Miura do not satisfy this limitation. In Miura's compounds, the carboranyl groups are linked to the porphyrin macrocycle not by carbon-carbon bonding, as required by Claim 1, but instead by an ether linkage. In the nomenclature of the Miura patent, the carboranyl groups are part of the groups designated "Y." Miura's "Y" groups are in all cases bound to the porphyrin macrocycle by an oxygen atom, i.e., by an ether linkage, not by carbon-carbon bonding. For example, see the structure depicted in

Miura's col. 4, and then see col. 5, lines 1-3: "Y is selected from the group consisting of ortho, meta, or para  $O(CH_2)_n C_2 H B_9 H_{10}$  or  $O(CH_2)_n C_2 H B_{10} H_{10}$  . . . ." There are other, similar examples within Miura, all of which show the ether linkage.

Independent Claim 1 requires carbon-carbon bonding between carboranyl and porphyrin. Miura instead uses a carbon-oxygen-carbon ether linkage. Miura does not anticipate the claimed inventions.

It is respectfully submitted that the § 102 rejections should be withdrawn.

### Miscellaneous

The March 29, 2006 Office Action enclosed several pages of Information Disclosure Citations or Information Disclosure Statements.

Some of these pages appear to have been mistakenly submitted in connection with another, unrelated patent application. They appear to have been filed in the present case due to a typographical error in the listed serial number.

More particularly:

The three pages having the caption "Information Disclosure Citation" and naming the first named inventor as "Maria da Graça Henriques Vicente" are properly associated with this application. ***The references cited on those three pages should be printed on the issued patent.***

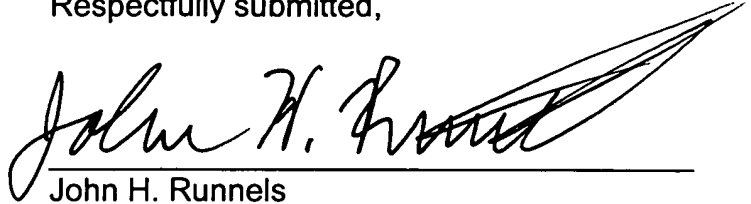
The five pages having the caption "Information Disclosure Statement by Applicant" and naming the first named inventor as "Turner" or "Dewayne Turner" are unrelated to this application. ***The references cited on those five pages should not be printed on the issued patent.***

A search of published patent applications and the public PAIR database suggest that these five pages should probably instead be associated with unrelated patent application serial number 10/712,153. Note that there is an apparent transposition of digits in the serial number shown on these five pages.

### **Conclusion**

Allowance of Claims 1-18 at an early date is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, reading "John H. Runnels", is written over a horizontal line.

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